

ROBOT-IN-A-BOX FLEXIBLE AND COMPACT PALLETISING CONCEPT

- Universal vacuum gripper head
- Easy programming
- Plug and play



ROBOT-IN-A-BOX

The SOCO SYSTEM Robot-In-A-Box concept is a complete "plug and play" solution for case palletising.

See it in action at www.socosystem.com

SOCO
SYSTEM

WWW.SOCOSYSTEM.COM

IMPROVES PRODUCTIVITY AND THE WORKING ENVIRONMENT

The SOCO SYSTEM palletising robot streamlines production, eliminates strenuous tasks and is extremely cost-effective.

THE ROBOT-IN-A-BOX CONCEPT

The concept is based on the standard SOCO SYSTEM portal robot base construction. An easy and flexible unit for you to deploy wherever it is needed in your production setup.

The Robot-In-A-Box unit is equipped with universal vacuum gripper head and universal pallet positioning device and will handle practically any case or pallet you want to operate.

Online or offline programming

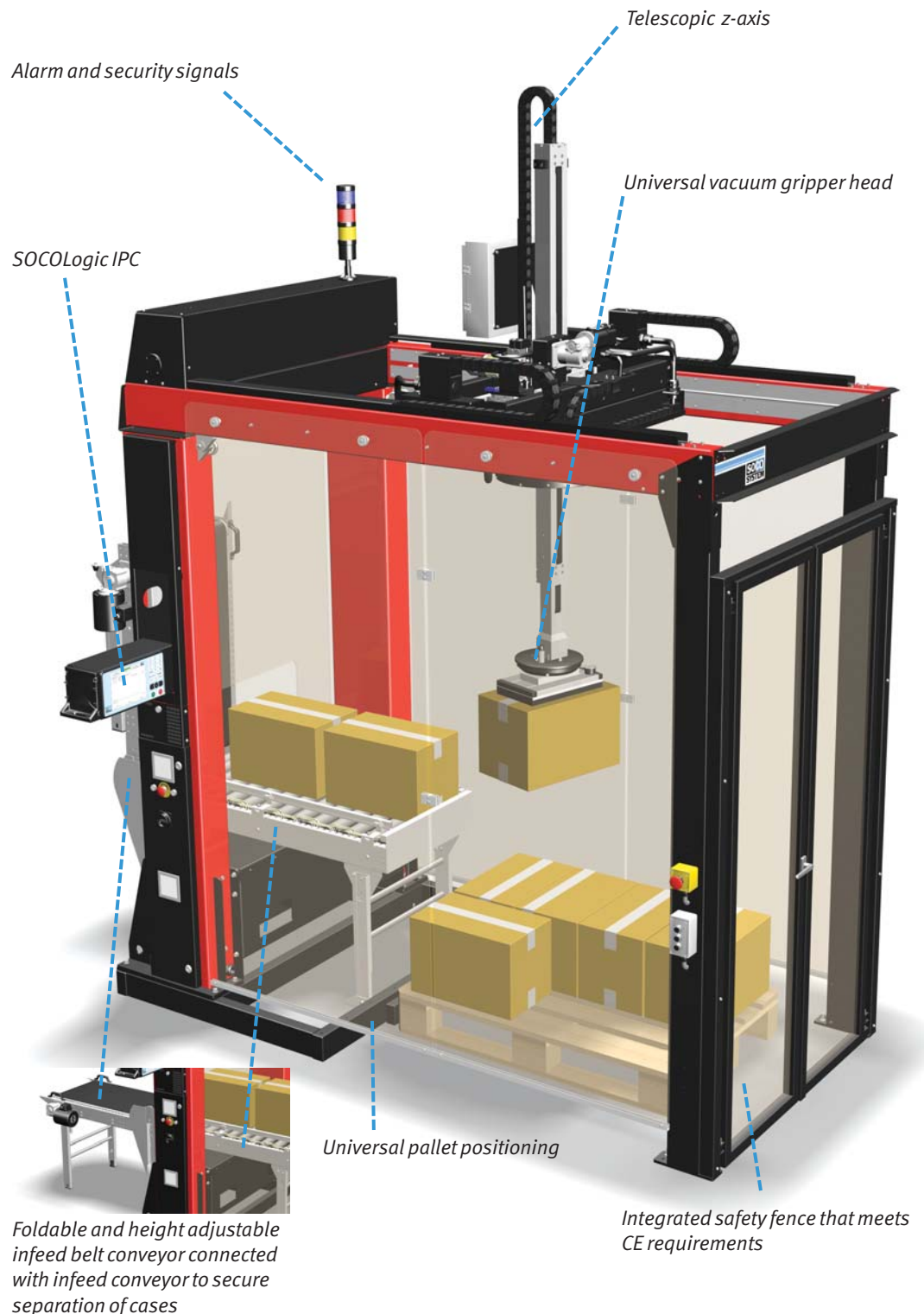
The robot IPC is delivered preinstalled with SOCOlogic self-programming software and PalletBuilder software for complex pallet patterns.

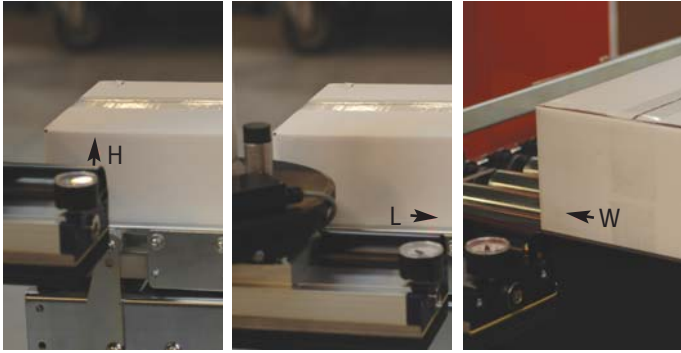
Service, education, and delivery

The Robot-In-A-Box solution comes with a complete service management backup including webcam and remote control assistance setup, e-learning based education of all relevant personal, and "plug & play" delivery to your production site.

Safe to operate, simple and versatile

The machine requires minimal maintenance and is easy to access.





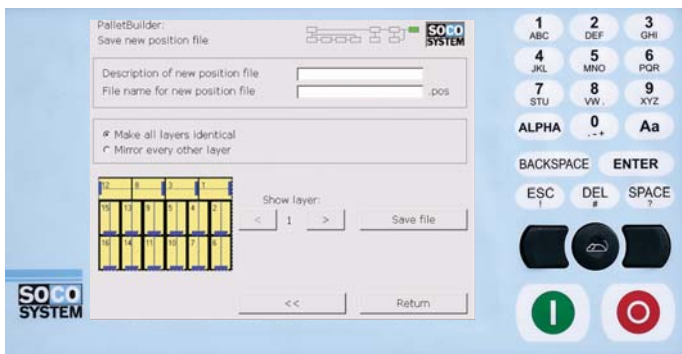
The robot scans the case dimensions and calculates the pallet pattern.

Online programming

The robot calculates the pallet pattern by itself ...

The case to be palletised is led into the robot, which then registers the case dimensions. The robot then quickly calculates the optimum pallet pattern and starts palletising. The preferences required behind the calculation are entered in the SOCOlogic software before the robot is put into operation. Preferences can be number of layers, pallet pattern type, layer pads, etc.

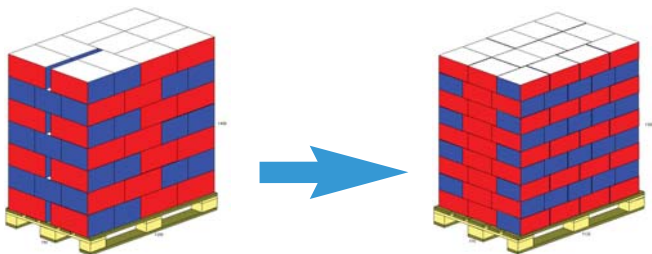
It is, naturally, possible to choose another pallet pattern or change the current pattern at any time.



Offline programming

For programming of more advanced pallet load programmes, the PalletBuilder software included is used.

New pallet patterns generated using optimisation software such as CAPE PACK® can be transferred online or via disk.



Change between existing pallet patterns

If the pallet pattern is already in the IPC it is easy to change to another pallet pattern.

The software is Windows-based and the IPC can be used for control of peripheral equipment such as pallet conveyors, pallet magazines, etc.

GENERAL SPECIFICATIONS FOR THE ROBOT-IN-A-BOX PRODUCT SOLUTION

Axes

The 3 basic x-, y-, z-axis as well as 270 dg. turning of the robot head in steps of 1 dg.

Maximum item weight

The maximum item weight depends on the item type and quality, the lifting technique used, speed, etc. The maximum item weight is typically 20 - 25 kg.

Capacity

Up to 10 transfers a minute depending on the pallet pattern, the size, weight and quality of the items.

Conveyor

The standard width is 500 mm.

Colour

As standard, the robot is supplied in RAL 2002.

Stainless steel

The palletising robot is available in stainless steel.

Air consumption

Min. 6 Bar.
App. 15 l per cycle.

Power

3 x 210/230/250 Vac + PE
50/60 Hz
or
3 x 360/400/440/480 Vac + PE
50/60 Hz.

Connected load

App. 2.5 kW.

Models/ pallet sizes

RIB 1014:

Max. pallet dim.:
800 mm x 1200 mm

RIB 1214:

Max. pallet dim.:
1000 mm x 1200 mm

RIB 1414:

Max. pallet dim.:
1200 mm x 1200 mm

Load height/ Floor-to-ceiling height*

Firm z-axis

H1: 1450 mm / 3620 mm
H2: 1750 mm / 4220 mm
H3: 2050 mm / 4820 mm

Telescopic z-axis

H1: 1400 mm / 2945 mm
H2: 1700 mm / 3395 mm
H3: 2000 mm / 3845 mm

*The values stated are specifically for the standard Robot-In-A-Box product solution.

Other specifications can be achieved by individual customisations.

Accessories

- Safety fence with foldable "garage" door opening
- Safety fence with laser scanner door opening
- Rollerskate supports for extreme mobility
- Financial options such as leasing, rent, or pay-per-use contracts

Manual palletising

Illustration 1 shows the traditional operator work station. Filling, taping and palletising manually.

If you concentrate your end-of-line manpower on the refined steps of your packing process, you can rationalise and increase effectiveness/throughput.

Automatic palletising

Install a standardised plug & play robot solution with close-to-zero project management overhead.

Illustration 2 shows the robot for pallet size 800 mm x 1200 mm. Same or less floor space as the traditional manual operator work station.

Ergonomics are improved by eliminating heavy load functions.

Two or more lines with automatic palletising

Illustration 3 one robot on each production line means:

- Flexibility
- High productivity
- Less downtime

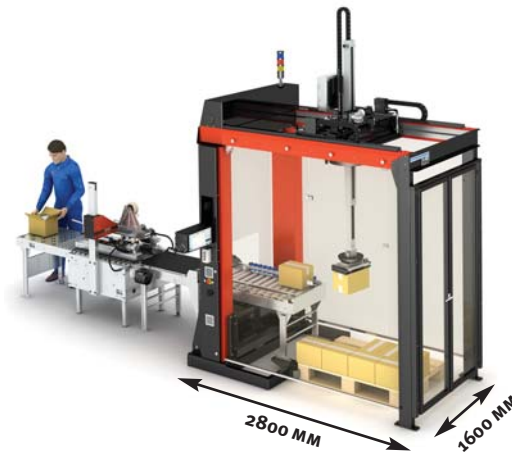
The Robot-In-A-Box concept can be installed after any sealer, strapper or likewise.



1



Flextronics,
Netherlands



2



Sig. Ágústsson ehf.,
Iceland



Laru,
Germany



Toms Chokolade A/S,
Denmark



3



Rioja Alta S.A.,
Spain



Bouché Père & Fils,
France



United Milk plc,
United Kingdom



Altmark Käserei,
Germany